AMENDMENTS TO THE CLAIMS

1.(currently amended) A system for determining the distance between a case and a detector wherein:

said case ~~contains:~~ includes;

an RF transmitter of a RF signal when ~~actuated~~ actuated;

an audio transmitter of an audio signal when actuated; and

actuator means for actuating said RF transmitter and said audio transmitter;

said detector ~~containing:~~ includes;

an RF receiver of said RF signal;

an audio receiver of said audio signal;~~and~~

means for determining the distance from said case to said detector as a function of the time between the receipt of said RF signal and the receipt of said audio ~~signal.~~ signal; and,

means for generating an indication, only when said case is determined to be within a reference distance of said detector.

2.(canceled)

3.(currently amended) The system of claim 1 wherein said case is a simulated explosive device ~~and said actuator~~ and, said actuator means simulates activation of said device.

4.(original) The system of claim 3 wherein said detector comprising means for actuating said audio receiver in response to reception of the RF signal.

5.(original) The system of claim 4 wherein said detector further comprises means for authenticating receipt of the audio signal transmitted by said audio transmitter.

6.(currently amended)A system for determining the distance between a simulated explosive device and a detector wherein:

said simulated explosive device comprises a case including:

an RF transmitter of a RF signal when actuated;

an audio transmitter of an audio signal when actuated; and

actuator means for actuating said RF transmitter and said audio transmitter;

said detector includes:

an RF receiver of said RF signal;

an audio receiver of said audio signal;

a programmed detector microprocessor including:

means for actuating said audio receiver, only upon receipt of said RF signal by said RF receiver;

means for authenticating the receipt of said audio signal;

means for determining the distance from said explosive device to said detector, as a function of the time between the receipt of said RF signal, and the receipt of said audio signal.

~~The system of claim 5 wherein said detector further comprises a programmed detector microprocessor which~~

~~actuates said audio receiver only in response to an indication said RF signal had been received,~~

~~authenticates said audio signal, and~~

~~determines the time between receipt of the RF signal and receipt of the audio signal.~~

7.(currently amended) The system of claim 6 wherein said detector includes means for generating a first indication and a second indication wherein:

said first indication being generated if the distance from said simulated explosive device to said detector is within a first reference range; and,

said second indication being generated if the distance from said explosive device to said detector is within a second reference range.

~~provides a first indication if the detector is determined to be within a first distance from the case where a person would be killed by a real grenade, and a second indication if the detector is determined to be within a second distance range from the case where a person would be wounded by a real grenade.~~

8.(currently amended) The system of claim 7 including means for adjusting at least one of said first and second indications by a probability. ~~wherein said first and second indications are adjusted by the probability that a person within those distances would be killed or wounded by a real grenade.~~

9.(currently amended) A system for determining the distance between a simulated hand grenade and a detector, wherein:

said simulated hand grenade comprises a case including:

an RF transmitter of a RF signal when actuated;

an audio transmitter of an audio signal when actuated; and

actuator means for actuating said RF transmitter and said audio transmitter, said actuator means including:

a trigger for generating an electrical signal when said trigger is released;

means for delaying the actuation of said RF transmitter, and said audio transmitter, for a first predetermined time after said electrical signal is generated;

said detector including:

an RF receiver of said RF signal;

an audio receiver of said audio signal; and,

means for determining the distance from said simulated hand grenade to said detector, as a function of the time between the receipt of said RF signal, and the receipt of said audio signal.

~~The system of claim 3 wherein said case is a simulated hand grenade and said actuator comprises:~~

~~a trigger that is released when the case leaves an operator's hand, the trigger generating an electrical signal indicative of the release; and~~

~~means for delaying actuation of said RF transmitter for a predetermined period after said signal is generated.~~

10.(currently amended) The system of claim 9 wherein said case includes a programmed case microprocessor, said case microprocessor including said means for delaying the actuation of said RF transmitter and said audio transmitter by the first predetermined time, said RF transmitter and said audio transmitter being actuated substantially simultaneously. ~~further contains a programmed microprocessor case which~~

~~actuates said RF transmitter a predetermined time after receipt of a signal indicating said trigger was released; and~~

~~actuates said audio transmitter nearly simultaneously with the actuation of the RF transmitter.~~

11.(currently amended) The system of claim 10 wherein said case microprocessor includes means for causing at least one re-transmission of said RF signal and said audio signal, said at least one re-transmission, delayed from an initial transmission, by a second predetermined time. ~~programmed case microprocessor causes said RF and audio signals to be retransmitted after a delay to increase the probability that said signals are received.~~

12.(currently amended) The system of claim 10 wherein said ~~programmed~~ case microprocessor includes means for causing ~~further causes~~ said audio transmitter to generate a loud pulse noise simulating the noise of an exploding hand grenade, said pulse noise occurring after said RF and audio signals are transmitted.

13.(currently amended) A system for determining the distance between a simulated directional explosive and a detector, and an angle between the detector and an axis of the directional explosive, the system comprising:

said simulated directional explosive comprising a case, said case including:

an RF transmitter of a RF signal when actuated;

a first audio transmitter of a first audio signal when actuated; and,

actuator means for actuating said RF transmitter, said first audio transmitter, and a second audio transmitter;

said second audio transmitter transmitting a second audio signal when actuated, said second audio transmitter spaced a reference distance from, and operatively connected to, said case;

said detector includes:

an RF receiver of said RF signal;

an audio receiver of said first and second audio signals;

means for determining a first distance from said detector to said first audio transmitter, and a second distance from said detector to said second audio transmitter, as a function of the time between the receipt of said RF signal, and the receipt of said first and second audio signals; and,

means for determining the angle between the detector and the axis of the directional explosive, as a function of said first distance, said second distance, and said reference distance.

~~The system of claim 3 wherein the case is a simulated Claymore mine and further comprises a second audio transmitter and located a known distance from and electrically connected to said case; said case generating said RF signal and audio signals from each of said audio transmitters when actuated; and said detector further comprises means for determining the angle with respect to the front of the case of the detector from the time between receipt of said RF signal and receipt of each audio signal.~~

14. (currently amended) The system of claim 13 wherein said detector includes means for generating an indication, only when at least one of said first distance and said second distance, is determined to be within a reference range. ~~The system of claim 13 wherein said predetermined distance is different for different angles.~~

15. (withdrawn) A method for simulating the effect of an explosive device on a detector spaced from the detector comprising:

generating at the location of the explosive device an RF signal and an audio signal;

receiving at the location of the detector the RF signal and audio signal; and

determining at the location of the detector the distance of the generated signals from the detector as a function of the time between receipt of the RF signal and receipt of the audio signal.

16.(withdrawn) The method of claim 15 wherein the RF and audio signals are pulse signals.

17.(withdrawn) The method of claim 16 further comprising generating at the location of the explosive device an audio signal representative of an explosion.

18.(withdrawn) The method of claim 17 further comprising generating an audio signal from each of two spaced transducers near the location of the explosive device; and determining the angle from the location of the explosive device to the location of the detector as a function of the time between receipt of the RF signal and receipt of each audio signal.

19.(new) The system of claim 14 wherein said reference range is a function of said angle between the detector and the axis of the directional explosive.